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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,894

09/30/2003

Wayne L. Proefrock

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EXAMINER

BUTLER, DENNIS

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/676,894

Applicant(s)

PROEFROCK ET AL.

Examiner

Dennis M. Butler

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-12, 14 and 17-21 is/are rejected.
- 7) ☒ Claim(s) 4, 13, 15-16 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/30/03</u>   | 6) <input type="checkbox"/> Other: _____                          |

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1. This action is in response to the application filed on September 30, 2003. Claims 1-22 are pending.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 6, the phrases "the optical disc" and "the drive mechanism" lack proper antecedent basis.

Claim 9 is unclear and indefinite as to which claim it depends from because the claim is dependent on itself.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 7-10, 12, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim, U. S. Patent 6,043,950.

Per claim 7:

A) Kim teaches the following claimed items:

1. an optical drive with the CD-ROM drive at column 1, lines 17-37 and at column 3, lines 41-43;
2. generating a notification (command) in response to a wake event at step 130 of figure 1, at column 2, lines 43-44, at column 3, lines 1-3 and at column 4, lines 9-10;
3. providing power to the optical drive at step 140 of figure 1 and at column 3, lines 4-8 and 41-47;

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4. responding to the wake event by the optical drive at step 180 of figure 1 and at column 3, lines 29-30.

Per claims 8-10 and 12:

Kim describes that system controller 21 determines whether an external key command has been input by a user at step 130 of figure 1, with figure 2 and at column 3, lines 1-2. Receiving the command inherently changes the logical state of the system controller interface. Kim describes that the wake event includes pushing a button (external key command) at column 3, lines 1-3. Kim describes connecting a voltage to a power line in an interface to the optical drive with figure 2, at column 2, lines 38-40 and at column 3, lines 4-8. Kim describes querying the optical drive for a context of the received wake notification and receiving the context at step 150 of figure 1, at column 2, lines 35-37 and at column 3, lines 9-14.

Per claim 19:

A) Kim teaches the following claimed items:

1. providing power to the optical drive in response to a received wake notification at step 140 of figure 1 and at column 3, lines 4-8 and 41-47;
2. querying the optical drive for a context of the received wake notification at step 150 of figure 1, at column 2, lines 35-37 and at column 3, lines 9-14;
3. exploiting the context of the received wake notification at steps 160 through 180 of figure 1 and at column 3, lines 20-30.

Per claim 20:

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Kim inherently describes instructing a power switch to close by reconnecting the devices to the power supply with figure 2, at column 2, lines 38-40 and at column 3, lines 4-8.

8. Claim 7 is rejected under 35 U.S.C. 102(a) as being anticipated by Lee, U. S.

Patent Application Publication 2003/0163746.

Per claim 7:

A) Lee teaches the following claimed items:

1. an optical drive with the CD-ROM drive with figure 1 and at paragraphs 6 and 12;
2. generating a notification (interrupt) in response to a wake event at steps 24-25 of figure 2 and at paragraphs 8, 19 and 20;
3. providing power (wake up) to the optical drive at step 25 of figure 2 and at paragraphs 8 and 20;
4. responding to the wake event by the optical drive at step 26 of figure 2 and at paragraph 21.

9. Claims 1-3, 5-6, 8-12, 14, 17-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee, U. S. Patent Application Publication 2003/0163746 in view of Kim, U. S. Patent 6,043,950.

Per claim 1:

A) Lee teaches the following claimed items:

1. a parallel interface including a plurality of predefined lines with lines RDWR, DATA and INT of figure 1 and at paragraph 12;

2. drive circuitry capable of being maintained in an unpowered state with MCU 1 of figure 1 and at paragraphs 8, 17 and 18;

3. wake circuitry to provide a notification signal (INT) on one of the plurality of predefined lines (INT) with decoder 3 of figure 1, with step 25 of figure 2 and at paragraphs 8 and 20.

B) The claims differ from Lee in that Lee fails to explicitly teach providing the notification signal in response to an action of a user when the drive circuitry is unpowered as claimed.

C) However, Lee describes providing a notification signal (INT) in response to receiving a command at paragraphs 8 and 19-20. Lee does not describe why the command is sent to the microcontroller of the drive. However, Kim teaches that it is known to send a command to the microcontroller of a drive in response to input by a user such as an external key command at column 1, lines 24-31, with step 130 of figure 1 and column 3, lines 1-8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the notification signal in response to an action of a user when the drive circuitry is unpowered, as taught by Kim, in order to allow the user to indicate that they want to use the drive. One of ordinary skill in the art would have been motivated to combine Lee and Kim because of Lee's suggestion of waking drive circuitry upon receiving a command and Kim's suggestion of waking drive circuitry upon receiving a command input by a user. It would have been obvious for one of

ordinary skill in the art to combine Lee and Kim because they are both directed to the problem of waking an optical drive from an unpowered state.

Per claims 2-3, 5 and 6:

Lee describes that the predefined line is an interrupt line with the INT line of figure 1 and at paragraph 20. Kim inherently describes actuating a power switch by the action of a user by reconnecting the devices to the power supply in response to a user command with figure 2, at column 2, lines 38-40 and at column 3, lines 4-8. Lee describes an optical drive with the CD drive of figure 1 and at paragraphs 6 and 12. The CD drive inherently has receive and eject mechanisms that are operated by user actions such as inserting or ejecting a disk.

Per claims 8-12:

Lee teaches the elements of claim 7 as described in the above rejection. Lee describes changing the logical state of an interface line (INT) with figure 1 and at paragraph 20. Lee in view of Kim describe changing the interface line based on a user performing a wake event as described above in connection to claim 1. Lee describes an optical drive with the CD drive of figure 1 and at paragraphs 6 and 12. The CD drive inherently has receive and eject mechanisms that are operated by user actions such as inserting or ejecting a disk. In addition, Kim describes external key commands input by a user for sending commands to a CD drive at column 3, lines 1-3. Therefore, Lee in view of Kim teach that pushing a button, inserting/loading optical media and ejecting optical media to/from an optical drive



is known. Kim describes connecting a voltage to a power line in an interface to the optical drive with figure 2, at column 2, lines 38-40 and at column 3, lines 4-8. Kim describes querying the optical drive for a context of the received wake notification and receiving the context at step 150 of figure 1, at column 2, lines 35-37 and at column 3, lines 9-14.

Per claim 14:

A) Lee teaches the following claimed items:

1. an optical drive with the CD drive of figure 1 and at paragraphs 6 and 12;
2. drive electronics capable of being maintained in an unpowered state with MCU 1 of figure 1 and at paragraphs 8, 17 and 18;
3. wake circuitry to provide a wake signal (INT) with decoder 3 of figure 1, with step 25 of figure 2 and at paragraphs 8 and 20;
4. an interface including a line to carry the wake signal from the wake circuitry with decoder 3 and the INT line of figure 1 and at paragraphs 12 and 20;
5. a host to house the optical drive with the host computer at paragraphs 8 and 19.

B) The claims differ from Lee in that Lee fails to explicitly teach providing the wake signal in response to a button being pushed on the optical drive or optical media being inserted into the drive and an antenna proximate the host as claimed.

C) However, Lee describes providing a wake signal (INT) in response to receiving a command at paragraphs 8 and 19-20. Lee does not describe why the

command is sent to the microcontroller of the drive. However, Lee describes an optical drive with the CD drive of figure 1 and at paragraphs 6 and 12. The CD drive inherently has receive and eject mechanisms that are operated by user actions such as inserting or ejecting a disk. In addition, Kim teaches that it is known to send a command to the microcontroller of a drive in response to input by a user such as an external key command when the drive electronics are unpowered at column 1, lines 24-31, with step 130 of figure 1 and column 3, lines 1-8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the wake signal in response to a button being pushed on the optical drive or optical media being inserted into the drive, as suggested by Kim, in order to allow the user to indicate that they want to use the optical drive. One of ordinary skill in the art would have been motivated to combine Lee and Kim because of Lee's suggestion of waking drive circuitry upon receiving a command and Kim's suggestion of waking drive circuitry upon receiving a command input by a user. It would have been obvious for one of ordinary skill in the art to combine Lee and Kim because they are both directed to the problem of waking an optical drive from an unpowered state. Regarding the antenna proximate the host, antennas are commonly used in wireless devices such as wireless routers, wireless network cards, wireless mouse and wireless keyboards. These wireless devices were well known and available on the market at the time of the invention and it would have been obvious for one of ordinary skill in the art to include a wireless device proximate the host computer.

Per claims 17 and 18:

Kim describes connecting a voltage to a power line in an interface to the optical drive with figure 2, at column 2, lines 38-40 and at column 3, lines 4-8.

Per claim 21:

Lee describes that the notification signal is an interrupt signal with the INT line of figure 1 and at paragraphs 8 and 20.

10. Claims 4, 13, 15-16 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis M. Butler whose telephone number is 571-272-3663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Dennis M. Butler  
Primary Examiner  
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